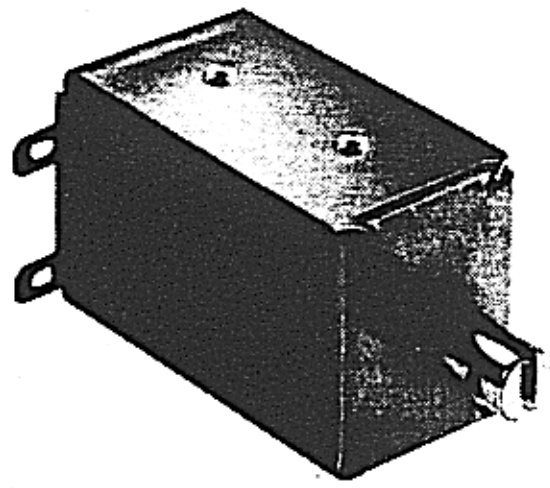


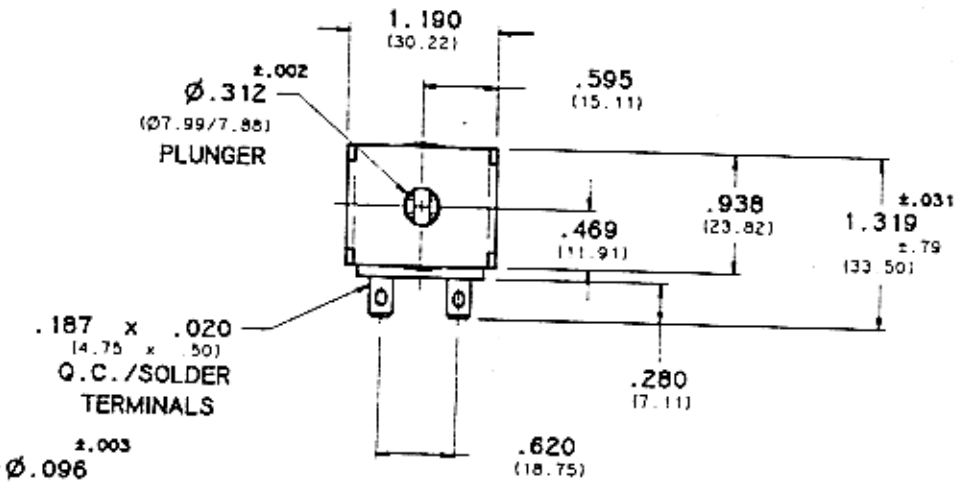
DELTROL controls

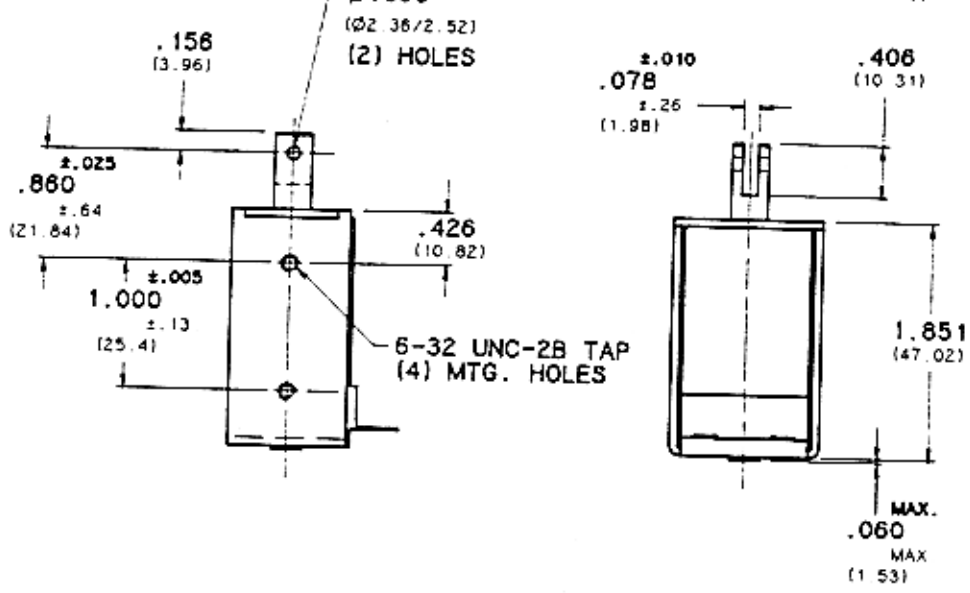
DIVISION OF DELTROL CORP.

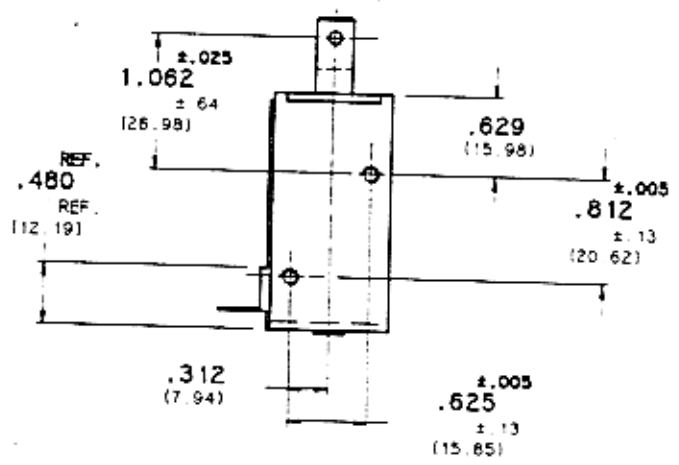
P/N ~~13242~~ 13351

D-11 "D" FRAME SOLENOID

DIMENSIONS







Unless Otherwise Specified:
Inches ± .015
(Millimeters) ± .38

COIL TREATMENT:
Plastic Encapsulation.
Class A Rating (standard)

MAXIMUM OPERATING TEMPERATURE:
Class A – 105°C (221°F)
Class B – 130°C (266°F)

DIELECTRIC STRENGTH:
30 Volts and Under: 500 VRMS
Over 30 Volts: 1,000 VRMS plus 2x rated voltage for one minute

STANDARD POWER RATINGS:

DUTY	NOMINAL AC POWER (SEATED)	NOMINAL DC POWER
Continuous	12.5 VA	8 W
Intermittent	39 VA	19 W
Pulse	125 VA	80 W

UL INFORMATION:
UL File No. E57982 For Continuous Duty
UL File No. E74443 For Insulation Systems
S105, S130 & S130D *Available Upon Request*

WEIGHT:
Plunger – .65 Oz.
Total – 5 Oz.

PLUNGER GUIDE MATERIAL:
Plastic

LIFE EXPECTANCY:
10^7 Cycles Under Optimum Load Conditions

TERMINATION:
.187 In. Quick-Connect/Solder Lug (standard)
Wire Leads (optional with tape-wrapped coils)

PLUNGER CONE ANGLE (DC):
60 degrees (standard)
also available flat, 90 degrees, custom

MAXIMUM DIMENSIONS:

Length	1.866 In.
Width	1.350 In.
Height	1.205 In.
Plunger Diameter	ø.315 In.

MAXIMUM STROKE:
1.0 In. (AC) .8 In. (DC)

Pg 2 of 2

P/N 131342

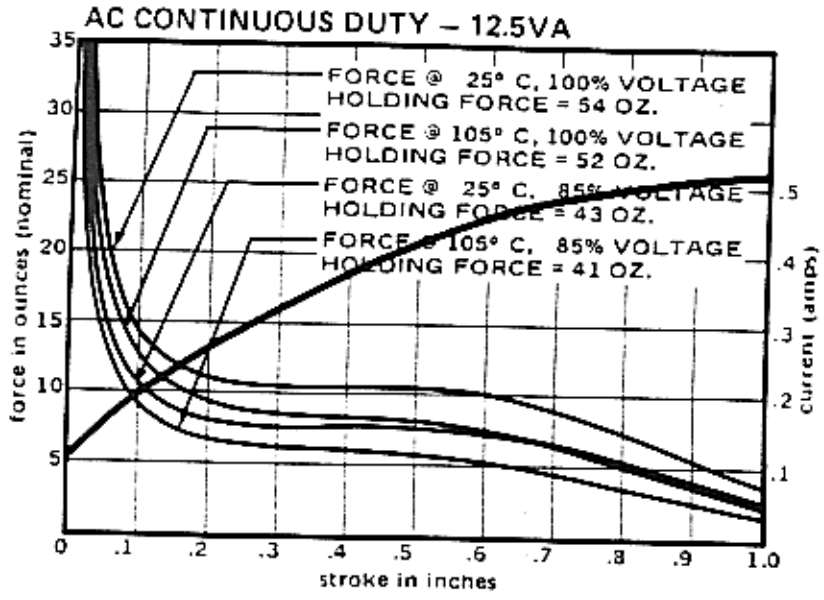
D-11 STANDARD COIL RATING

VOLTAGE	CONTINUOUS DUTY	RESISTANCE ±5%	INTERMITTENT DUTY	RESISTANCE ±5%	PULSE DUTY	RESISTANCE ±5%
AC COILS (60 Hz)	**P/N**		**P/N**		**P/N**	
6 VAC	53738-80	.47 OHMS	53738-86	.21 OHMS	53738-92	.11 OHMS
12 VAC	53738-81	1.9 OHMS	53738-87	.86 OHMS	53738-93	.43 OHMS
24 VAC	53738-82	7.7 OHMS	53738-88	3.5 OHMS	53738-94	1.73 OHMS
120 VAC	**53738-84***	200 OHMS	**53738-90***	85 OHMS	53738-96	45.5 OHMS
240 VAC	53738-85	8.13 OHMS	53738-91	342 OHMS	53738-97	182 OHMS
DC COILS						
6 VDC	53736-80	4.5 OHMS	53736-86	1.9 OHMS	53736-92	.47 OHMS
12 VDC	**53736-81***	18.6 OHMS	**53736-87***	7.7 OHMS	53736-93	1.9 OHMS
24 VDC	**53736-82***	73.9 OHMS	**53736-88***	31.0 OHMS	53736-94	7.7 OHMS
110 VDC	53736-84	1550 OHMS	53736-90	634 OHMS	53736-96	151 OHMS

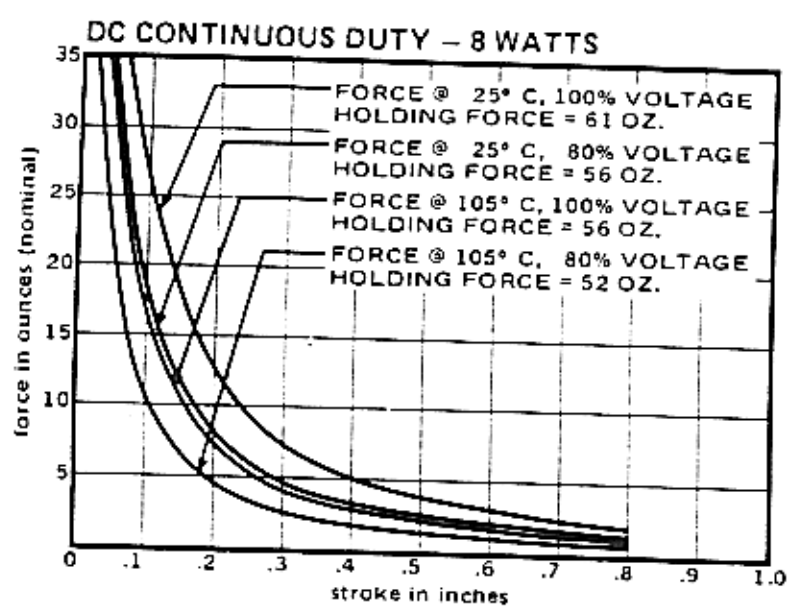
***Black Items Are Normally Stocked.**
Blue Items Are Non Stock – Minimum Quantity May Be Required.

D-11 FORCE CURVES (CLASS A)

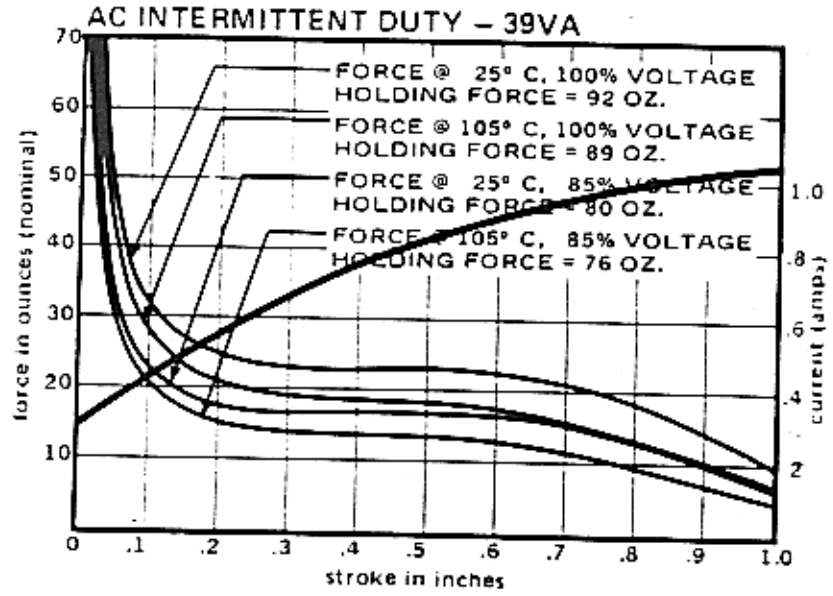
AC CONTINUOUS DUTY – 12.5VA


FORCE @ 25° C, 100% VOLTAGE HOLDING FORCE = 54 OZ.
FORCE @ 105° C, 100% VOLTAGE HOLDING FORCE = 52 OZ.
FORCE @ 25° C, 85% VOLTAGE HOLDING FORCE = 43 OZ.
FORCE @ 105° C, 85% VOLTAGE HOLDING FORCE = 41 OZ.
force in ounces (nominal)
current (amps)
stroke in inches

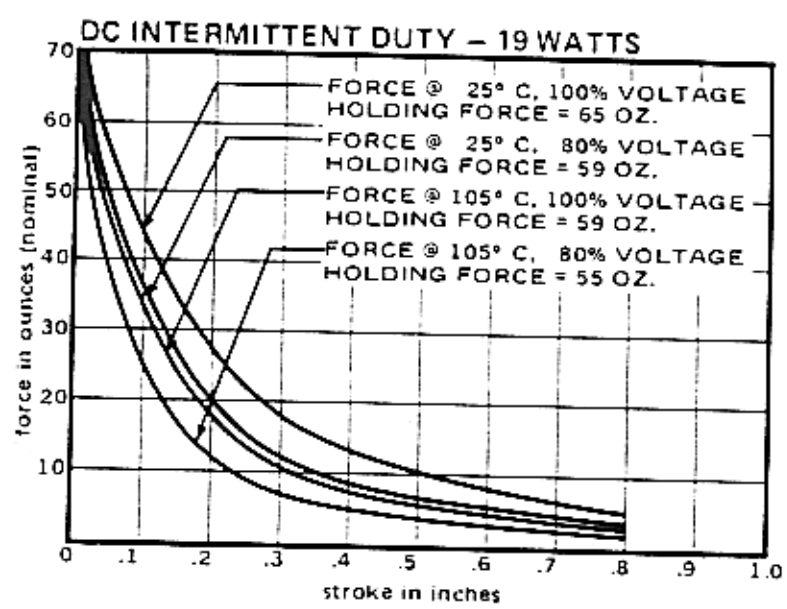
DC CONTINUOUS DUTY – 8 WATTS


FORCE @ 25° C, 100% VOLTAGE HOLDING FORCE = 61 OZ.
FORCE @ 25° C, 80% VOLTAGE HOLDING FORCE = 56 OZ.
FORCE @ 105° C, 100% VOLTAGE HOLDING FORCE = 56 OZ.
FORCE @ 105° C, 80% VOLTAGE HOLDING FORCE = 52 OZ.
force in ounces (nominal)
stroke in inches

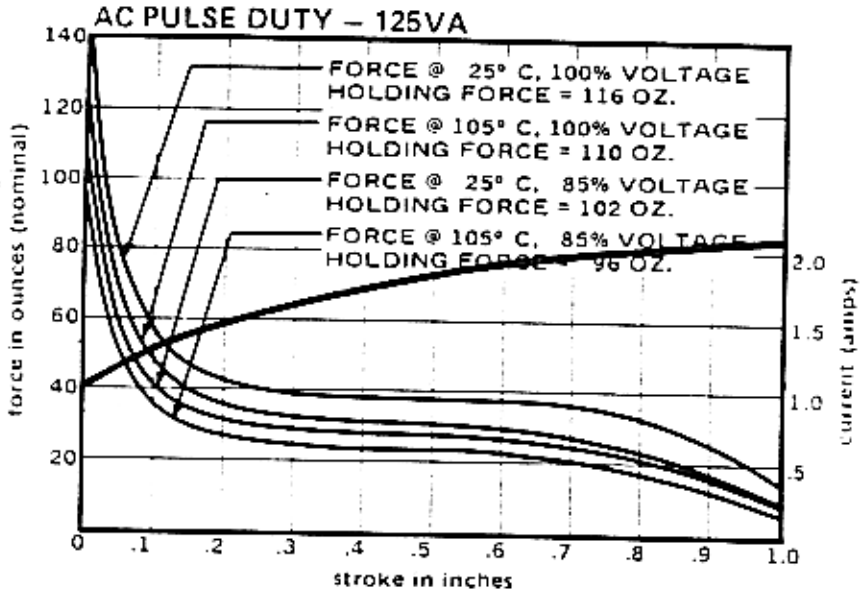
AC INTERMITTENT DUTY – 39VA


FORCE @ 25° C, 100% VOLTAGE HOLDING FORCE = 92 OZ.
FORCE @ 105° C, 100% VOLTAGE HOLDING FORCE = 89 OZ.
FORCE @ 25° C, 85% VOLTAGE HOLDING FORCE = 80 OZ.
FORCE @ 105° C, 85% VOLTAGE HOLDING FORCE = 76 OZ.
force in ounces (nominal)
current (amps)
stroke in inches

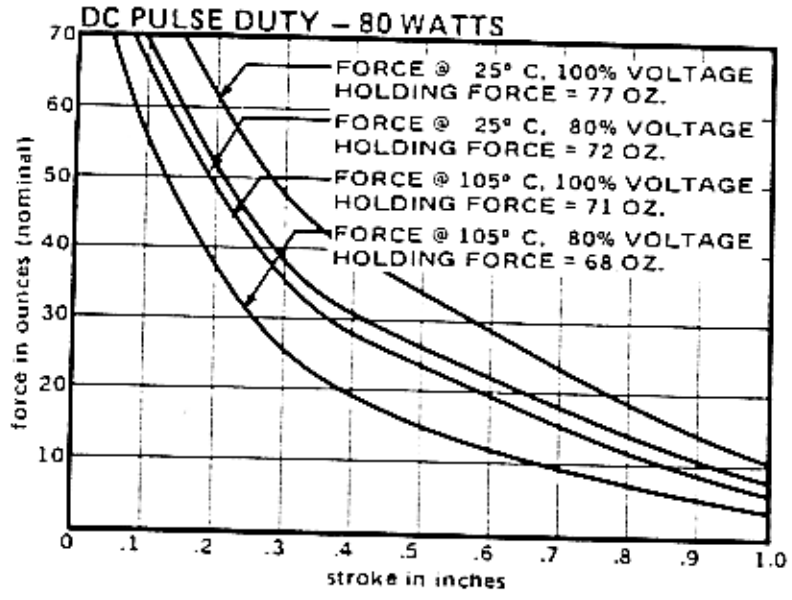
DC INTERMITTENT DUTY – 19 WATTS


FORCE @ 25° C, 100% VOLTAGE HOLDING FORCE = 65 OZ.
FORCE @ 25° C, 80% VOLTAGE HOLDING FORCE = 59 OZ.
FORCE @ 105° C, 100% VOLTAGE HOLDING FORCE = 59 OZ.
FORCE @ 105° C, 80% VOLTAGE HOLDING FORCE = 55 OZ.
force in ounces (nominal)
stroke in inches

AC PULSE DUTY – 125VA


FORCE @ 25° C, 100% VOLTAGE HOLDING FORCE = 116 OZ.
FORCE @ 105° C, 100% VOLTAGE HOLDING FORCE = 110 OZ.
FORCE @ 25° C, 85% VOLTAGE HOLDING FORCE = 102 OZ.
FORCE @ 105° C, 85% VOLTAGE HOLDING FORCE = 96 OZ.
force in ounces (nominal)
current (amps)
stroke in inches

DC PULSE DUTY – 80 WATTS


FORCE @ 25° C, 100% VOLTAGE HOLDING FORCE = 77 OZ.
FORCE @ 25° C, 80% VOLTAGE HOLDING FORCE = 72 OZ.
FORCE @ 105° C, 100% VOLTAGE HOLDING FORCE = 71 OZ.
FORCE @ 105° C, 80% VOLTAGE HOLDING FORCE = 68 OZ.
force in ounces (nominal)
stroke in inches

Standard intermittent duty cycle at nominal voltage is 25%, with 3 minutes maximum "ON" and 9 minutes minimum "OFF" in a repetitive cycle. Standard Pulse duty cycle is 10% with 100 milliseconds "ON" and 900 milliseconds "OFF"

NOTE: Approx 36 sq. in. Heat Sink Required.